

SAS Superstructure

Location: 04-SF-80-13.2 / 13.9 Client Name: CalTrans

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 472 Const Calendar Day: 535 Date: 21-Nov-2013 Thursday Inspector Name: Soheilifard, Saman Title: Transportation Engineer

Inspection Type: Continuous

Shift Hours: 07:15 am 05:30 pm **Break:** 00:30 **Over Time:** 02:00

Federal ID: Location:

Reviewer: Awal, Mohammad Approved Date: 30-May-14 Status: Approved

Weather

Temperature 7 AM 50 - 60 **12 PM** 50 - 60 **4PM**

Precipitation none Condition Rain

Working Day 🗸 If no, explain:

Diary:

Work description.

Thursday, November 21, 2013

Pile Driving

Day 2: Piles #3 & #4

The following two outfits hired by Caltrans will be present during this pile driving operation:

Illingworth & Rodkin, Inc (Acoustic Monitoring)

Jordan Roberts

Jarred McDaniel

Garcia & Associates (Mammal Monitoring)

Phil Thorson

Adam Fox

Marina Olson

Carrol Kiper

It should be noted that the Barge EM 1106 is the barge that has the crane Manitowac 4100 mounted on it.

- •At 8:50, following the positioning of Barge EM 1106 and prep work on the pile driving template, pile #3 was picked up:
- •Pile #3 is located on the S. W. corner of the T1 foundation;
- •At 9:05, pile was plumbed, adjusted, and let sink under its own weight to the 57-ft mark which was right above the waterline;
- •At 9:20, final adjustments done;
- Water Depth: 57 ft (sounding);
- •At 9:25, the Vibratory Hammer (VH) was placed on the pile & for the next 35 minutes the pile was pulled, driven, plumbed until it was removed at 10:00. The currents were quite strong at this time.
- •Crew broke out to add sections to the Bubble Curtain (BC) as the deeper section was encountered. 4 sections were pieced together as one shorter section was removed. The length of the BC is now: 1'-6' + 13'-1" + 13'-11" + 21'-10" = 61'-4";
- •At 11:45, the BC was finally lifted off the EM1106 Barge;
- •At 11:51, it was placed over Pile #3;
- •By 12:01, the hoses were connected to the BC;
- •At 12:40, the Impact Hammer (IH) was placed on top of the pile;
- •At 13:05, BC turned on;
- •At 13:06, first blow;
- •Blow count by Jonathon & I:

Saman Depth Blow count 1 21 2 23



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Run date 22-Nov-14

Time

04-0120F4

04-SF-80-13.2/13.9

Self-Anchored

Suspension Bridge

4:07 PM

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Jonathon	1	17		
	2	24		
	3	30		
	4	35		

Done at 13:10

- •I lost track of my blow count as people blocked my view
- •At 13:25, the hammer was laid on the deck;
- •At 13:35, BC was on the deck as well;
- •At the conclusion of the IH operation, the top rung of the BC was at the same level as the 80-ft mark on the pile. Therefore, the embedment length is about: 80 61'-4" = 19ft;

At 13:45, barge was re-positioned;

- •At 14:00, Pile #4 was picked up and was slated to the S.W corner of the footing, slightly North West of Pile #3 that was just driven;
- •At 14:05, pile hoisted over the final destination and ready for adjustments;
- •At 14:13, pile was lowered. The top flange of the template at the 61 1/4-ft mark with respect to the pile;
- •At 14:20, VH on the pile, check for plumb;
- •At 14:24, the surveyor Ok'd location and VH began operation;
- •At 14:32, following a few stop & go (pull & drive) the VH stopped and removed off the pile. Pile was vibrated to the 71 1/2 ft mark (WRT top flange). Therefore, the embedment length prior to the placement of the IH is: $71.5 61 \frac{1}{4} = 10ft$;

At 14:44, the 61'-4" BC was lowered over pile #4 and the boats were deployed with workers to attach 4 hoses to BC;

- •Boat always operates during the IH operation which demands the operation of the BC;
- •At 14:52, hoses attached:
- •At 14:53, crane hooked up to the IH;
- •NOTE: there must be a huge drop-off from the location of Pile #4 to Pile #3 as the Bubble Curtain is a good 10 feet higher at this location. Is the BC it resting on mud as it should?

At 15:13, Impact Hammer on top of the pile;

- •The top rung of the BC at the 70 ¾ mark before the IH operation;
- •AT 15:15. BC is turned on:
- •At 15:16, check for plumb, OK'd by surveyor, begin driving;

BLOW COUNT:

Depth Blow 1 19 1 3/4 54

At 15:29, stop;

•Embedment Length: 72 $\frac{1}{4}$ (top ring of the BC after IH) – 61 $\frac{1}{4}$ = 11 ft;

ONLY 11 FT IN THE GROUND;

At 15:43, hammer was on the deck and off the hook by 15:46;

- •AT 15:51, begin BC remove & finish at 15:58;
- •At 16:40, crew departed;

Note1: Jonathon, Dutra engineer, told me that starting tomorrow based on an agreement between CT and Dutra, 100% of work on the remaining 8 piles will be tracked under an agreed CCO. He indicated all work is considered pile driving as stipulated in this CCO. Moreover, he indicated that those who negotiated the CCO deemed Dutra's position acceptable that if it were not for the employment of the Bubble Curtain;

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Dutra would have been done in 2 days!!! Even he could not refrain from wearing an ear to ear smirk! Hence, for the first two days Dutra accepted all expense.

The bubble curtain removal and placement takes only a couple of hours at best as has been shown in my diaries over the past two days, yet, they are entitled to charge an entire day on pile driving! There are quite a few other items such as moving/re-positioning of barges, survey, adjustments of piles after survey, down-times due to equipment malfunction...that are definitely non-pile driving items. All the aforementioned activities take big chunks of time away from the sole activity of pile driving. It should be pointed out that the time spent driving piles with the Impact Hammer does NOT even factor into the pile driving equation as it does not require the activation of the Bubble Curtain. As indicated earlier, the Pile Driving due to Impact Hammer takes up a minute fraction of a 10-hour day, yet somehow Dutra has been given a sweet heart of a deal.

The ONLY time during the driving of four piles over the past two days the time spent on the bubble curtain was somewhat inordinate, was during the driving of Pile #3. In that case, the bubble curtain had to be disassembled and re-assembled. However, even then the time spent does not amount to more than 3 hours. This is just a travesty. Starting tomorrow, Jonathan told me, I need to sign a sheet indicating the percentage of work Dutra spent driving piles. Hereby, I am stating that I am signing these sheets vouching for the fact that Dutra was working the said hours; however, by no means were they spending even half the day driving piles with the impact hammer.

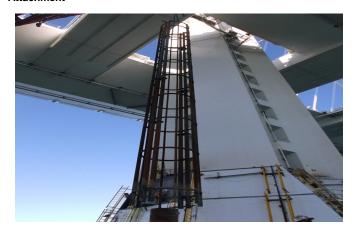
Note 2: I do not believe that enough bearing was developed on pile #3 and discussed my concern with Jonathon. He does not share my opinion. My opinion is predicated on the fact that there was not a decisive way that the blow count on Pile #3 could be established past 2 ½ feet of driving and the blow count was somewhat speculative at that point. I was instructed by my boss that since this work is based on Dutra's means & method and the false work is temporary, I should just record my concern as the liability falls on Dutra's shoulders.

04-0120F4	Bid Item: 041	0-000-000.041	ERECT PRECAST CONCRETE FENDER MODULES					
DUTRA MATER	RIALS							
Labor								
Trade	Class	Name	RT Hrs	OT Hrs	DT Hrs	Total	Remarks	Dispute
Contractor:	DUTRA MATERIALS							
Piledriver	JNM	LUKE HUDSON	8.00	2.00	0.00	10.00		
Piledriver	JNM	WALTER QUINTERO	8.00	2.00	0.00	10.00		
Piledriver	JNM	JEFF SAINZ	8.00	2.00	0.00	10.00		
Piledriver	JNM	GILBERT MAYA	8.00	2.00	0.00	10.00		
Piledriver	JNM	DAVID SELPA	8.00	2.00	0.00	10.00		
Piledriver	JNM	SAMI TAVAKE	8.00	2.00	0.00	10.00		
Piledriver	JNM	JON - PAUL CHENEY	8.00	2.00	0.00	10.00		
Piledriver	GEN	TREVER MURRAY	8.00	2.00	0.00	10.00		
Piledriver	APP	ROBERT UTLEY	8.00	2.00	0.00	10.00		
Piledriver	APP	JAMES SAVAGE	8.00	2.00	0.00	10.00		
Operator	OTH	DAVE AVILAS	8.00	2.00	0.00	10.00		
Operator	ОТН	STEVE FRIYER	8.00	2.00	0.00	10.00		
Equipment							Rental Company	
Equipmen	t ID Description		RT Hrs	OT Hrs	ST Hrs	IT Hrs	Remarks	Dispute
Contractor:	DUTRA MATERIALS							
*E0660562							No	
			8.00	2.00	0.00	0.00		
*E0650562							No	
			8.00	2.00	0.00	0.00		
*E0620562	!						No	
			0.00	0.00	0.00	0.00		

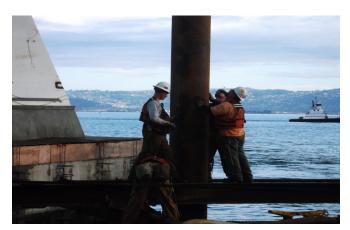


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Attachment













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